

Remarks/Arguments:

Claim 1 has been amended. No new matter is introduced herein. Claims 1-6 are pending.

Fig. 1 has been amended to include a "Prior Art" label. No new matter is introduced herein.

Claims 1, 3, 4 and 6 were rejected under 35 U.S.C. §102(b) as being anticipated by Kawahata et al. (U.S. Pat. No. 6,140,968). It is respectfully submitted that this ground for rejection is overcome by the amendment to claim 1. In particular, Kawahata et al. do not disclose or suggest:

...said radiating element is placed inside the opening portion of said ground conductor...

...said ground conductor continuously surrounds said radiating element...

as required by claim 1.

Basis for the amendment may be found at p. 3, lines 18-22; and Fig. 2.

Kawahata et al. disclose, in Fig. 8, a surface mount circularly polarized wave antenna 45 having a radiation electrode 13 on a main face of substrate 11 and ground electrodes 46 and 47 that partially extend on the main face which includes the radiation electrode 13 (Col. 7, lines 34-44). Kawahata et al. do not disclose or suggest that the ground conductor continuously surrounds the radiating element, as required by Applicants' claim 1. Kawahata et al., instead, disclose that a feeding electrode 14 is formed in a gap in the ground electrode 46 and that ground electrode 46 is insulated from feeding electrode 14 (Col. 7, lines 35-39). Accordingly, because of this gap, Kawahata et al. can not disclose a ground conductor that continuously surrounds the radiating element. Thus, Kawahata et al. do not include all the features of claim 1.

Because Kawahata et al. do not disclose all of the features of claim 1, claim 1 is not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Kawahata et al. and claims 3, 4 and 6 which depend from claim 1 are not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Kawahata et al.

Claims 2 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawahata et al. in view of Langley et al. (U.S. Pat. No. 6,480,170). These claims, however, include all of the features of claim 1 from which they depend and are patentable over Kawahata et al. and Langley et al. for at least the same reasons as claim 1.

Langley et al. do not supply the deficiencies of Kawahata et al. because they do not disclose or suggest that the ground conductor is on the same plane as the radiating element or that the ground conductor continuously surrounds the radiating element, as required by claim 1.

Langley et al. disclose that a dielectric layer 14 is disposed between a radiating element 10 and a ground plane 12 of a patch antenna (Col. 1, lines 53-55, Col. 2, lines 32-35 and Fig. 1). Thus, Langley et al. can not disclose or suggest that the ground conductor is on the same plane as the radiating element. Furthermore, Langley et al. are silent on the ground conductor having a square opening portion at a center portion. Langley et al, thus, can not disclose that the radiating element is placed inside the opening portion of the ground conductor or that the ground conductor continuously surrounds the radiating element.


The cited art, taken singularly or in combination, do not disclose or suggest the features of claim 1. Accordingly, claims 2 and 5, which include all the features of claim 1 from which they depend, are also not subject to rejection under 35 U.S.C. §103(a) as being unpatentable over Kawahata et al. in view of Langley et al.

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In view of the foregoing amendments and remarks, applicants request that the Examiner reconsider and withdraw the rejection of claims 1-6.

Respectfully submitted,


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Attachments: Figure 1 (1 Replacement Sheet)

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September 28, 2006


Patricia C. Boccella

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Amendments to the Drawings:

The attached sheet of drawings includes changes to Figure 1. This sheet replaces the original sheet.

Attachment